Ohio **Grade 8-10**

FlyBy Math™ Alignment
Academic Content Standards - Mathematics

Mathematical Processes Standard

Benchmarks Grades 8-10	***FlyBy Math*™ Activities**
A. Formulate a problem or mathematical model in response to a specific need or situation, determine information required to solve the problem, choose method for obtaining this information, and set limits for acceptable solution.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios. --Choose among tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes.
B. Apply mathematical knowledge and skills routinely in other content areas and practical situations.	--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
C. Recognize and use connections between equivalent representations and related procedures for a mathematical concept; e.g., zero of a function and the x-intercept of the graph of the function, apply proportional thinking when measuring, describing functions, and comparing probabilities.	--Represent distance, speed, and time relationship for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system. --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.
E. Use a variety of mathematical representations flexibly and appropriately to organize, record and communicate mathematical ideas.	--Use tables, bar graphs, line graphs, a Cartesian coordinate system, and equations to model aircraft conflicts and predict outcomes. --Predict outcomes and explain results of mathematical models and experiments.
F. Use precise mathematical language and notations to represent problem situations and mathematical ideas.	--Predict outcomes and explain results of mathematical models and experiments. --Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system.
G. Write clearly and coherently about mathematical thinking and ideas.	--Predict outcomes and explain results of mathematical models and experiments.
H. Locate and interpret mathematical information accurately, and communicate ideas, processes and solutions in a complete and easily understood manner.	--Explain and justify solutions regarding the motion of two airplanes using the results of plotting points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system. --Predict outcomes and explain results of mathematical models and experiments.